Tracking Workplace Chemical Hazards

Completed Occupational Health Branch Activity, 2001-2003

Background

The **Hazard Evaluation System and Information Service (HESIS)** reviews and evaluates scientific information on toxic chemicals and issues hazard alerts when new information indicates that workers may be at risk for long-term health problems like cancer, asthma, or reproductive damage. In response to HESIS alerts, Cal/OSHA develops protective standards to reduce workers' risks of health damage. In some cases, use of the chemicals in targeted industries declines dramatically.

In order to be effective in providing early warning about new chemical hazards, HESIS needs to know where the chemicals are used in California workplaces. It has become increasingly difficult to obtain this information. New industries bring with them new uses of existing chemicals or new chemicals that are not yet regulated. This results in newly exposed workforces. Environmental regulations to control air pollution can result in the development of new, unregulated chemicals that are later found to be toxic to workers.

Purpose

The purpose of this project was to identify an effective way to track hazardous chemicals used in California workplaces. Knowing where specific hazardous chemicals are used will enable HESIS to effectively direct health warnings to employers and workers who use the chemicals to help prevent work-related disease and other serious health damage.

Activities

- Identified existing systems that can be used to track industrial chemicals in California, other states, or other countries;
- Evaluated each system's performance and usefulness in tracking 7 selected "test" chemicals that can cause long-term health damage;
- Ranked the systems' potential for statewide tracking of chemical use, evaluating factors such as effectiveness, ease of use, and accessibility by computer;
- Assessed the potential effectiveness of voluntary compliance by asking chemical manufacturers and distributors of the 7 test chemicals to provide their California customer lists to HESIS.

Partner

- Center for Occupational & Environmental Health (COEH), University of California, Berkeley

Frequently Asked Questions

1. Why is it important to track chemicals?
2. What type of chemicals is HESIS interested in tracking?
3. What did the project find out about chemical hazard tracking systems in California?
4. What happened when HESIS asked chemical manufacturers to voluntarily provide information?
5. Did the project results lead to recommendations for a tracking system that would help HESIS target health hazard alerts to specific workplaces?
6. How would a tracking system benefit employers and workers?

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1. Why is it important to track chemicals?

To reduce the risks of serious health problems, workers and employers must get new health hazard information on chemicals as soon as possible. An effective method or system to track hazardous chemicals will identify workplaces where specific chemicals are being used. This will allow HESIS to distribute health hazard alerts directly and quickly to employers and workers who use the chemicals to help them protect against health hazards.

2. What type of chemicals is HESIS interested in tracking?

HESIS is interested in tracking chemicals that can cause serious health damage that workers and employers may be unaware of because it does not show up immediately and is difficult to link to exposure. In most cases, the chemicals are not yet regulated to protect against the long-term health effects such as cancer and reproductive damage, and the health hazard information is not listed on Material Safety Data Sheets.

3. What did the project find out about chemical hazard tracking systems in California?

The project found no existing state-based chemical hazard tracking systems that would enable HESIS to identify businesses that use specific hazardous chemicals to carry out its legislative mandate to provide early warning about workplace hazards. State and federal law require counties or other local agencies to maintain inventories of hazardous chemicals used by businesses in their jurisdictions. However, the inventory data are not available on a statewide basis, are not computerized, and were not useful for identifying business addresses for the 7 “test” chemicals.

4. What happened when HESIS asked chemical manufacturers to voluntarily provide information?

Written requests to manufacturers and distributors of the 7 “test” chemicals to voluntarily provide lists of their California customers were not successful. Of the 96 manufacturers and importers HESIS contacted, only 6 sent client lists for the requested chemical(s).

5. Did the project results lead to recommendations for a tracking system that would help HESIS target health hazard alerts to specific workplaces?

Based on the results of the project, the University of California, Berkeley’s Center for Occupational and Environmental Health made two recommendations for improving chemical

hazard tracking in California. The first was to develop a Product Registry in California that requires manufacturers and distributors of hazardous chemicals to submit Material Safety Data Sheets and client lists to the State on an annual basis. The second was for local agencies to use computerized databases for collecting and maintaining complete hazardous materials inventories regardless of chemical quantity.

6. How would a tracking system benefit employers and workers?

It would benefit both workers and employers by helping to prevent work-related disease. It would help them get accurate, up-to-date information on the health hazards of toxic chemicals, safe substitutes, and how to protect against exposure. Many work-related diseases have no cure and result in long-term disability; prevention is the only cure. The economic and human costs of these illnesses for workers and their families can be enormous. In addition, work-related illness and disability costs employers money by raising health insurance and workers' compensation rates and disrupting business.

Related Resources (current at the time project was completed)

- **CDC/NIOSH National Occupational Exposure Survey** – data on potential occupational exposures to chemical, physical and biological agents
- **Certified Unified Program Agencies (CUPAs)** – responsible for enforcement activities, permits, and other functions related to environmental and emergency management programs, including hazardous materials inventories [www.calepa.ca.gov/CUPA/].
- **Unidocs - Santa Clara County Online Hazardous Materials Inventory Project**
- **EPA Toxics Release Inventory** – database on toxic chemical releases reported by industry groups and federal facilities [www.epa.gov/tri/]
- **Scorecard Pollution Information Site** – toxic chemical release reports by county [www.scorecard.org/]

Related HESIS/OHB Publications

- **Chemical Hazard Surveillance: An Evaluation of Data Collection Systems in California**, the United States, and Scandinavia. Report to HESIS by the Univ. of California, Berkeley, May 2003.
- **1-Bromopropane Hazard Alert**
- **Understanding Toxic Substances**: An Introduction to Chemical Hazards in the Workplace
- **Workplace Chemical Hazards to Reproductive Health**: A Resource for Worker Health and Safety Training and Patient Education

To see these publications, or to learn more about the work of the Occupational Health Branch, visit:

- Hazard Evaluation System and Information Service - www.cdph.ca.gov/programs/hesis
- Occupational Health Branch - www.cdph.ca.gov/programs/ohb